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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|---------------------------|---------------------------|------------------|
| 10/006,484 | 12/05/2001 | William Jordan Yarborough | 72167.000295 | 3635 |
| 21967 7590 02/24/2006 HUNTON & WILLIAMS LLP INTELLECTUAL PROPERTY DEPARTMENT 1900 K STREET, N.W. SUITE 1200 WASHINGTON, DC 20006-1109 | | | EXAMINER PAN, JOSEPH T | |
| | | | ART UNIT 2135 | PAPER NUMBER |

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|----------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/006,484 | YARBOROUGH, WILLIAM JORDAN | |
| | Examiner | Art Unit | |
| | Joseph Pan | 2135 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8/29/05&5/10/04&</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 11, 2006 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 11-13, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sit et al. (U.S. Patent No.: 6,349,336 B1) in view of Underwood (U.S. Patent No.: 6,718,535 B1).

Referring to claim 1:

i. Sit et al. teach:

A secure system for transferring data, the system comprising:

A client system (see e.g. figure 5, item 314I; and column 7, lines 17-19 of Sit et al.);

A server (see e.g. figure 5, item 308E; and column 7, lines 19-22 of Sit et al.);

A secure system interposed between the client system and the server for controlling communications between the client system and the server, the security system including:

A first proxy system (see e.g. figure 5, item 306 of Sit et al.) and a second proxy system (see e.g. figure 5, item 312 of Sit et al.), the first proxy system coupled between the client system and the second proxy system (see e.g. figure 5, items 308I, 306, 312; and column 7, lines 15-25 of Sit et al.) and the second proxy system coupled between the server and the first proxy system (see e.g. figure 5, item 308E, 312, 306 of Sit et al.);

A firewall coupled between the first proxy system and the second proxy system (see figure 5, items 312, 305, 306 of Sit et al.), firewall restricting data flow between the first proxy system the second proxy system to outbound communications (see figure 5, item 305; and column 7, lines 26-28 of Sit et al.).

However, Sit et al. do not specifically mention using a single port on the firewall. Sit et al. also do not specifically mention that the system supports file transfer protocol (FTP).

ii. Underwood teaches a system for providing an activity framework wherein the system funnels all traffic through a single port on the firewall instead of using a different port number for each application (see column 280, lines 35-38 of Underwood). Underwood further discloses that proxy services are specialized applications or server programs that run on a firewall host, which take users' requests for Internet services (such as FTP and TELNET) and forward them, as appropriate according to the site's security policy, to the actual services. The proxies provide replacement connections and act as gateways to the services. For this reason, proxies

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are sometimes known as Application Level Gateways (see column 104, lines 65-67; and column 105, lines 1-5 of Underwood).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Underwood into the system of Sit et al. to use a single port on the firewall. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Underwood into the system of Sit et al. to support FTP.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Underwood into the system of Sit et al. to use a single port on the firewall, because it's well-known in the art of the computer network that using a single port on the firewall, instead of opening multiple ports, increases the security of the network. The ordinary skilled person would have been motivated to have applied the teaching of Underwood into the system of Sit et al. to support FTP, because most application gateway firewalls provide proxy service for the most common Internet protocols, such as FTP, HTTP, HTTPS, etc. (see column 278, lines 13-15 of Underwood).

Referring to claim 2:

Sit et al. and Underwood teach the claimed subject matter: a secure system for transferring data (see claim 1 above). Sit et al. further disclose that the client system will send the request to the first proxy system. The first proxy system will forward the request to the second proxy system, via the single port in the firewall, and the second proxy system will establish a connection with the server (see e.g. figure 5, items 308I, 306, 305, 312, 308E; and column 7, lines 34-40 of Sit et al.).

Referring to claim 11:

Sit et al. and Underwood teach the claimed subject matter: a secure system for transferring data (see claim 1 above). Sit et al. further disclose the system comprising a plurality of clients and a plurality of servers to transfer data through the single port in the firewall (see figure 5, items 310I, 308I, 314I, 316I, 310E, 308E, 314E, 316E; and column 7, lines 15-25 of Sit et al.).

Referring to claim 12:

This claim has limitations which is similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

Referring to claim 13:

This claim has limitations which is similar to those of claim 2, thus it is rejected with the same rationale applied against claim 2 above.

Referring to claim 25:

This claim has limitations which is similar to those of claim 11, thus it is rejected with the same rationale applied against claim 11 above.

4. Claims 3-4, 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sit et al. (U.S. Patent No. 6,349,336) in view of Underwood (U.S. Patent No.: 6,718,535 B1), and further in view of Fan et al. (U.S. Patent No. 6,219,706).

Referring to claim 3:

i. Sit et al. and Underwood teach the claimed subject matter: a secure system for transferring FTP data (see claim 1 above). However, Sit et al. and Underwood are silent about the command (or control) channel in FTP data transfer.

ii. Fan et al. teach a control channel. The control channel is used to initiate the FTP (File Transfer Protocol) connection between the client and the server (see column 2, lines 12-14 of Fan et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the teaching of Fan et al. into the system of Sit et al. and Underwood to use the command (or control) channel in FTP data transfer.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Fan et al. into the system of Sit et al. and Underwood to use the command (or control) channel in FTP data transfer, so as to protect sensitive resources such as engineering workgroup server or financial databases from unauthorized users (see column 1, lines 24-26 of Fan et al.).

Referring to claim 4:

i. Sit et al. and Underwood teach the claimed subject matter: a secure system for transferring FTP data (see claim 1 above). However, Sit et al. and Underwood are silent about transferring a representation of a socket from server to the client.

ii. Fan et al. disclose the process of setting up a FTP data connection. Via the control channel mentioned in claim 3, the client and server negotiate a port number for data channel (see column 2, lines 14-17 of Fan et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the teaching of Fan et al. into the system of Sit et al. and Underwood to transfer a representation of a socket from the server to the client.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Fan et al. into the system of Sit et al. and Underwood to transfer a representation of a socket from the server to the client, so as to protect sensitive resources such as engineering workgroup server or financial databases from unauthorized users (see column 1, lines 24-26 of Fan et al.).

Referring to claim 14:

This claim has limitations which is similar to those of claim 3, thus it is rejected with the same rationale applied against claim 3 above.

Referring to claim 15:

This claim has limitations which is similar to those of claim 4, thus it is rejected with the same rationale applied against claim 4 above.

5. Claims 5-10, 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sit et al. (U.S. Patent No. 6,349,336) in view of Underwood (U.S. Patent No.: 6,718,535 B1), further in view of Fan et al. (U.S. Patent No. 6,219,706), and further in view of Albert et al. (U.S. Patent No. 6,687,222).

Referring to claim 5:

i. Sit et al., Underwood and Fan et al. teach the claimed subject matter: a secure system for transferring FTP data (see claim 4 above). However, they do not teach modifying the IP address in the socket.

ii. Albert et al. teach to modify the IP address of the host in a packet before forwarding the packet on to client (see figure 3A, item 302; and column 12, lines 29-33 of Albert et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the teaching of Albert et al. into the system of Sit et al., Underwood and Fan et al. to modify the IP address of the host in a packet before forwarding the packet to the client.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Albert et al. into the system of Sit et al., Underwood and Fan et al. to modify the IP address of the host in a packet before forwarding the packet to the client, thus enabling a device that is protected by a firewall to be controlled by a device external to the firewall (see column 1, lines 10-12 of Sit et al.).

Referring to claim 6:

Sit et al., Underwood, Fan et al. and Albert et al. teach the claimed subject matter: a secure system for transferring FTP data (see claim 4 above). Sit et al. further disclose that the client system transmits a request through said security system for data located on the server (see figure 5, items 308I, 306; and column 7, lines 34-40 of Sit et al.).

Referring to claim 7:

Sit et al., Underwood, Fan et al. and Albert et al. teach the claimed subject matter: a secure system for transferring FTP data (see claim 4 above). Sit et al. further disclose that the first proxy server forwards the request to the second proxy server via the single port on the firewall, and on to the data server (see figure 5, items 306, 305, 312, 308E; and column 7, lines 34-40 of Sit et al.).

Referring to claim 8:

This claim has limitations which is similar to those of claim 5, thus it is rejected with the same rationale applied against claim 5 above.

Referring to claim 9:

Sit et al., Underwood, Fan et al. and Albert et al. teach the claimed subject matter: a secure system for transferring FTP data (see claim 4 above). Sit et al. further disclose that the server transmits data through said security system to first proxy (see e.g. figure 5, items 308E, 312, 305, 306; and column 7, lines 34-40 of Sit et al.).

Referring to claim 10:

Sit et al., Underwood, Fan et al. and Albert et al. teach the claimed subject matter: a secure system for transferring FTP data (see claim 4 above). Sit et al. further disclose that the first proxy transmits data to the client system (see e.g. figure 5, items 306, 308I; and column 7, lines 34-40 of Sit et al.).

Referring to claims 16,17,18:

These claims have limitations which is similar to those of claim 5, thus they are rejected with the same rationale applied against claim 5 above.

Referring to claim 19, 22:

These claims have limitations which is similar to those of claim 6, thus they are rejected with the same rationale applied against claim 6 above.

Referring to claim 20:

This claim has limitations which is similar to those of claim 7, thus it is rejected with the same rationale applied against claim 7 above.

Referring to claim 21:

This claim has limitations which is similar to those of claim 8, thus it is rejected with the same rationale applied against claim 8 above.

Referring to claim 23:

This claim has limitations which is similar to those of claim 9, thus it is rejected with the same rationale applied against claim 9 above.

Referring to claim 24:

This claim has limitations which is similar to those of claim 10, thus it is rejected with the same rationale applied against claim 10 above.

Response to Arguments

6. Applicant's arguments filed on January 11, 2006 have been fully considered but they are moot due to the new grounds of rejections.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) Schoettger (U.S. Pub. No.: 2002/0069366 A1) discloses a method for providing an external client access to a device that is protected by a firewall.

(b) Fangman et al. (U.S. Pub. No.: 2002/0141352 A1) disclose a system for IP telephony.

(c) Do (U.S. Pub. No.: 2002/0007338 A1) discloses a method for conducting bidding sessions in various methods to arrive at the highest or lowest price.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Pan whose telephone number is 571-272-5987.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

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Joseph Pan
February 16, 2006

HS S
Primary Examiner
Art Unit 2135